Houston Airport System Comments and Recommendations for Airport SMS Implementation: Supplemental Notice of Proposed Rulemaking (SNPRM) Recommendations
Ref: FAA REOPENS COMMENT FOR AIRPORT SMS RULEMAKING (Aug 23rd, 2021 to Sep 23rd, 2021)

Introduction

1. More than 15 years ago in 2005, ICAO adopted a standard in Annex 14 that all member states establish a Safety Management System (SMS) requirements for their airports. Since 2010, FAA started working on Airport SMS implementation with the last request for comments on July 14th, 2016 - Supplemental Notice of Proposed Rulemaking (SNPRM) for (SMS) for Certified Airports.

2. Five years from its previous comments request, the FAA repeated its request for comments as the previous comments may be outdated or invalid as FAA requirements become clearer, airports better understanding and improved technology. This renewed interest by FAA is encouraging and much needed as some airports have started implementing SMS on their own without meaningful FAA support or guidance. The resultant laissez-faire/piecemeal approach has made the implementation process much more challenging and difficult.

Purpose

3. The purpose of this paper is to made recommendations for a more coherent approach for implementing Airport SMS with the FAA support, assistance, and compliance as the central pillars.

SMS Benefits

4. There will be tremendous benefits upon implementing SMS throughout airports as the SMS is a proven system shown by high-risk industries including: Chemical, Oil and Gas, Nuclear, Aerospace, Civil and Military Aviation, NASA and the Airlines. A more positive approach needs to be adopted to emphasis both the benefits and implementation challenges to encourage all airports buy-in to this undertaking.

5. The main purpose of SMS is to identify hazards and manage risks to an acceptable level. The main objectives are accident and incident prevention to reduce fatality, injury, and loss of equipment. Based on extensive studies and research, the relative cost of SMS implementation saves far more losses it prevents. A catastrophic accident may shut down an airport or an airline with dire consequences including lawsuits, loss of reputation and income.

SMS Implementation and FAA Assistance.

6. Successful implementation of SMS is greatly dependent on airport buy-in, top management support, motivated and knowledgeable SMS practitioners, data and information, SMS software, FAA support and assistance. The FAA should facilitate all airports to participate in SMS as soon as possible by highlighting its benefits, and relatively minimal requirements without making the regulations too complex or overly burdensome. This can be addressed as follows:

a. New Proposal:

o Applicability.
 Previous Comment:
 FAA should create exception for small international airports with limited international flights.
 New Proposal:
 Due to the benefits of SMS, all airports should be involved on a scalable approach with wavier if unable. This will also avoid the pitfalls of piece meal implementation such as Part 121 (Airlines) where the other flying organization don't have a mandated SMS till today.

- o Scalable Approach (standard requirement, timeline, staffing, organization)
  New Proposal:
  i. Recommend classification by size – large, medium, and small hub. Airports could be classified as per FAA Classifications of Air Carrier Airports (FAR 139). The severity and frequency of incidents will most likely be greater in larger hubs with more complexity and higher traffic. Classification by hub size with a graduated requirement and level of implementation will help the start-up process and assist in the resource challenges by prorating the requirements and providing a graduated timeline.

  ii. The FAA could adopt three implementation stages similar to IS-BAO (International Standard for Business Aircraft Operations) or provide a similar metric for small, medium, and large hubs based on the National Plan of Integrated Airport Systems (NPIAS) with waivers available in cases where compliance was impossible.

  Stage One: Small hub - 12 months implementation.
  One (01) SMS secondary staffing/collateral duty employee who c*onfirms:*
  - *the SMS infrastructure is established*
  - *safety management activities are appropriately targeted*
  - *all supporting standards have been established*

  Should include a basic Plan addressing the 4 SMS Components, Awareness Training, and basic Procedures and Reporting mechanisms

  Stage Two: Medium hub - 24 months implementation.
  One (01) SMS full-time Dedicated Position + secondary/collateral staffing who ensure that:
  - *safety management activitie are appropriately targeted and that safety risks are being effectively managed*
  - *Develop and implement a fully detailed SMS Plan*
  - *Trained Staff with full training program, detailed Procedures, and Integrated Reporting Software*

  Include all stakeholders for SMS with inspections, evaluation and audits as part of Safety Assurance

  Stage Three: Large hub - 36 months implementation
  Two (02) or more full-time SMS safety employees with an independent organization who ensure that:
  - *safety management activities are fully integrated into the operator's business and that a positive safety culture is being sustained.*
  - Incorporate all Stage Two Requirements and full developed culture and integration with partners.

  May exceed baseline staff recommendations particularly in enterprise organizations or/and offices

- o Education and Training
  New Proposal:
  Recommend at least one SMS practitioner in medium and large Hub receives full SMS training. Train the trainer methodology should be adopted thereafter. Computerized and/or internet training could be utilized for awareness and indoctrination training. Small hub airports could get started with SMS awareness training.

- o FAA Grant
  New Proposal:
  Recommend that the FAA provide SMS start-up grants of one hundred (100K), fifty (50K), and twenty-five (25K) thousand dollars for large, medium and small hub airports respectively.

- Accountable Executive, SMS Lead Position, and Safety Organization Teams would be explicitly prescribed.
  Previous Comment:
  The final rule should either explicitly allow the "Accountable Executive" (AE) to delegate SMS oversight and supervisory authority to a specific person within a tenant organization or by adopting a phase-in approach.
  New Proposal and Clarification:
  The AE roles and delegations are defined in ICAO Annex 14 and FAA Part 5. The AE shall continue to be accountable even if duties are delegated. The AE should be the most senior person, usually the Airport Director at large Hub. To truly promote a generative culture, effectiveness, integrity, and to prevent any Conflict of Interest, it is recommended the safety organization be an independent agency. Moreover, it is recommended that the SMS Lead be at least a manager level and be accountable/reportable to the AE independent of the 139 Operating Structure. This model is in alignment with the overall objective of enterprise risk management and further supports inclusion within an ERM model.

- FAA Regulation on Airport Safety
  New Proposal: Recommend that the FAA consolidate all airport SMS regulations in a new chapter "Airport Safety", with similar format as "Airline Safety".
  https://www.faa.gov/other_visit/aviation_industry/airline_operators/airline_safety/

- SMS implementation Plan and Manual.
  New Proposal:
  Recommend submission of airport SMS implementation plan in sixty (60) days for Large, Medium, and Small Hubs; and in one hundred twenty (120) days for all airports SMS manual submission. For standardization and to assist the airports SMS start-up, recommend FAA includes a sample of the implementation plan and the SMS manual in an Advisory Circular. Recommend that the simplified SMS manual sample in AC 150/5200-37 (intro to SMS for airport operator) be adopted for small and medium Hubs, while the Large Hub could use the sample SMS manual (moderated and made less complex) in the draft AC - 37A. Waivers should be made available if airports cannot meet the time requirements, but the waivers should require an implementation time-line from the airports seeking such relief.

- Software Development.
  New Proposal:
  Request that the FAA speed-up the development of vendor-supplied airport SMS software similar to the vendor-supplied/FAA supported software development concept contracted by the FAA in the Part 121 SMS program. Airports would be able to purchase the FAA-supported and FAA-compliant software at a discounted or friction of the cost and based on the airport size/number of people. The cost would also be more manageable if it is one complete package, non-modular, and without any startup, development fee or integration required. Software providing a proven, matured SMS process and procedure will be highly beneficial and help accelerate the implementation of airport SMS while maintaining compliance with FAA 14 CFR Part 5, with provision for FAA Aviation Safety Action Program (ASAP).

- Non-Movement Areas.
  Previous Comment:
  AAAE believes that SMS implementation in the non-movement area should be voluntary. However, if FAA is to apply airport SMS requirements to nonmovement areas, it should explicitly exempt those areas under exclusive control of air carriers, subject to SMS for operators and those areas under military control. AAAE recommended that FAA address jurisdictional issues in the non-movement areas.

New Proposal:
Ramp areas are prone to accidents and incidents including FOD related issues. Recommend that SMS should cover these areas as they are a mishap-prone part of an airport. SMS outreach should also, according to all its precepts, extend to tenants and vendors. In areas that are contractually operated (leased/preferred use) by other entities that already have an SMS requirement, those areas can be covered by those programs in collaboration with the overarching airport SMS program. This includes Air Carriers, Operators with an ICAO SMS Requirement, and Federal Partners with existing SMS requirements.

o   Interoperability and Data Sharing.
Previous Comment:
FAA should provide a detailed explanation as to how the implementation timeline for airport SMS fits within the FAA's overall plan to implement SMS throughout the aviation industry. The interaction between Part 121 SMS and airport SMS presents complex practical and legal problems because of the different requirements placed upon the types of entities subject to Part 121, Part 135, and Part 139, et al.
New Proposal:
For optimized SMS compliance, organizations involved at the airport, (airport, airline, cargo carriers, air traffic, FAA tech Ops) need to be integrated within the FAA SMS program, thus allowing data sharing for a more wholesome, proactive and predictive approach. Currently, some SMS software allows data sharing and Interoperability. Recommend FAA speed up the development in this area with an FAA supported vendor for airport SMS similar to concept implemented in the Part 121 SMS program.

o   Data Reporting and Sharing.
Previous Comment:
The creation of a national reporting database for voluntary reporting of SMS data is advisable. FAA should confirm that data submitted to the national reporting database voluntarily will not be subject to FOIA. FAA should also provide guidelines establishing minimum standards on types of data that be sent to the FAA.
New Comment:
This could be similar to the FAA ASAP program and the NASA Aviation Safety Reporting System (ASRS).

o   Data/FOIA Protections.
Previous Comment:
Airport sponsors are increasingly concerned about data becoming available to the public under federal, state, and/or local open records laws. Allowing public disclosure of data collected as part of an airport sponsor's SMS could create a serious chilling effect on the effectiveness of the SMS program and on the entire self-reporting, safety culture. Because voluntary submissions of safety data are protected from FOIA by federal law, the FAA must protect any information that a sponsor voluntarily submits. Such an approach would allow sponsors to take advantage of the narrow but vital FOIA exemption.
New comments:
Recommend that the FAA codify an FOIA Exemption for SMS reporting like the FAA ASAP and NASA ASRS programs to encourage opening reporting.

o   Multi-Airport Systems.
New Comment:
Recommend that the FAA allow Multi-Airport Systems to develop a single SMS Program for the entire Airport System as opposed to requiring an individual plan for each airport. Such a Plan would need to be in compliant with the requirements of the largest airport in the system. This will allow these systems to have a consistent program across their organization and facilitate better analysis of risk management by the various organizations within the system.

o Safety Awards and Recognition.
New Comment: Recommend that the FAA include a section in the sample SMS SOP for Safety Awards and Recognition to encourage the growth of SMS.

b. Previous comments and request for clarification:

o SMS and FAA Inspections.
Clarification:
With the FAA looking at a risk-based model for future Airport Inspections, how will SMS fit into these risk assessments and the airport inspections process.
New Comments:
Part 139 inspection and other processes such as evaluation and audit are part of the SMS Safety Assurance component. Part 139 self-inspection results may need to be analyzed for trending as part of SMS Safety Risk Management.

o SMS Scope.
Clarification:
The FAA should clarify the differences in the scope of SMS as it pertains to various FAR 139 surfaces. Example: Does SMS only impact 139 areas or does it expand to entire AOA.
New Comments:
The Part 139 inspection is to ensure that the airport meets a minimum standard in accordance with the FAA requirements. While the SMS focuses on safety risk management to prevent accidents and incidents, because these mishaps could occur anywhere in the airport, SMS should cover all AOA surfaces including the approach and departure corridors for landing and take-off.

o Safety Risk Management (SRM).
Previous Comment:
Flexibility to decide which hazards require the five-step process and which hazards simply need a more cursory review and mitigation. FAA should clarify that airports have such flexibility.
New Comments: Agreed, SRM should be applied with flexibility to prevent events from recurring. Given that the FAA is primarily focused on operational safety, it would not appear that there should be any issue on this.

c. Invalid comments, proposed deletion:

o Phasing-In Components of SMS.
Previous Comment:
FAA should phase in the actual implementation requirements for the three categories of airport sponsors required to implement SMS. This would include allowing an airport to justify a phase-in approach for training based on the characteristics of the airport environment, funding constraints, and other airport-specific concerns.
New Comment:
This would be rendered immaterial by the proposed Scalable Implementation Approach discussed above.

o   Implementation/Timeline.
Previous Comment:
Proposed rule is unclear with respect to implementation timetables. There are several elements of the timeline about which the SNPRM is silent where sponsors may need guidance. Clear deadlines are important because SMS implementation could easily take 5-8 years for some elements.
New Comment:
This would be rendered immaterial by the proposed Scalable Implementation Approach discussed above.

o   Training.
Previous Comment:
Airport sponsors are concerned that the FAA has underestimated the number of personnel needing SMS training. The FAA should provide an explanation for how it developed its estimates and guidance regarding the 3 to 10 employees or managers who will need comprehensive training. The FAA should make SMS-related material available to airport sponsors on its website and provide a list of required training elements.
New Comment:
This would be rendered immaterial by the proposed Scalable Implementation Approach that would reduce the number of people requiring full SMS training depending on the requirements imposed by the various Stages of implementation.

Conclusion

7. As of this writing, discussion on Airport SMS implementation is still on-going, although it has been more than fifteen (15) years since ICAO adopted a standard in Annex 14 (requiring that all member states establish SMS requirements for airport operators in 2005). Given this demonstrated inertia, there's a clear need to strenuously promote buy-in to overcome adverse attitudes, legacy-culture and resistance to change. Innovative, scalable, cost-effective and efficient solutions should be adopted immediately to facilitate airports' SMS start-up and implementation. FAA affiliated software development, support, and funding are essential to achieve the proactive, risk-based and data driven approach necessary to optimize safety within our crucially important airport network. The airport-SMS program will benefit all airports nationally as it has benefited other high-risk organizations such as Oil and Gas, Chemical, Nuclear, Aerospace, Civil and Military Aviation, NASA and the Airlines. To reap the full benefits of SMS and to build resilient high-performance organizations, we should not procrastinate any longer regarding its implementation. A catastrophic accident which would shut down a vital airport, air carrier operations or an airline is an unacceptable impetus for necessary change which, per ICAO Annex 14, is now almost sixteen years past due.

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Enclosures:

1. Summary of Recommendations and Comments

2.Table of Recommendation Summary

References:

1. Background on Airport SMS Rulemaking
https://www.aaae.org/AAAE/AAAEMemberResponsive/Advocacy/Regulatory_Affairs/Regulatory_Alerts/2021/SMS_SNPRM_reopened082321.aspx?WebsiteKey=e9d8c9b2-14f6-4192-87a2-419b1ca67c7d

2. Supplemental Notice of Proposed Rulemaking (SNPRM) for Safety Management System (SMS) for Certificated Airports (7/14/2016) https://www.federalregister.gov/documents/2016/07/14/2016-16596/safety-management-system-for-certificated-airports